

**PRE-APPEAL BRIEF REQUEST FOR
REVIEW**

Docket Number 042933/299090

(filed with the Notice of Appeal)

Application Number 09/869,534

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First Named Inventor Christopher Atkinson

Art Unit 2618

Examiner Perez M. Angelica

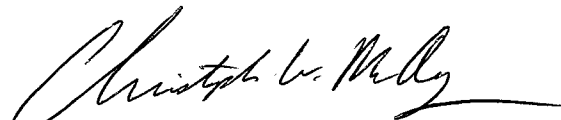
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

Respectfully submitted,



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Attachment

Reasons for Requesting Pre-Appeal Brief Request For Review

This communication is filed in response to the final Official Action of December 19, 2005 and the Advisory Action of April 20, 2006. The final Official Action continued to reject Claims 1-5, 13-16, and 20 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,337,073 to Tsunoda et al. ("Tsunoda") in view of Japanese Publication No. 10096890 to Masahiro ("Masahiro") and further in view of U.S. Patent No. 4,997,263 to Cohen et al. ("Cohen"). Dependent Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as obvious over Tsunoda in view of Masahiro and Cohen, and further in view of U.S. Patent No. 6,078,302 to Suzuki ("Suzuki"). Dependent Claims 8 and 9 are rejected under 35 U.S.C. § 103(a) as obvious over Tsunoda in view of Masahiro, Cohen, and Suzuki, and further in view of U.S. Publication No. 2001/0024967 to Bauer ("Bauer"). Dependent Claims 10-12 and 22 are rejected as obvious over Tsunoda in view of Masahiro, Cohen, and Bauer. Dependent Claims 23 and 24 are rejected under 35 U.S.C. § 103(a) as obvious over Tsudona in view of Masahiro, Cohen, and Bauer, and further in view of U.S. Patent No. 6,426,736 to Ishihara et al. ("Ishihara"). As explained below, however, Applicants respectfully submit that the cited references do not teach or suggest, alone or in combination, the claimed invention of the present application. Applicants, therefore, respectfully request reconsideration and reversal of the aforementioned rejections.

I. Summary of the Claimed Invention

In general terms, embodiments of the claimed invention are directed to an improved backlighting system in portable devices. A portable device in accordance with one embodiment of the claimed invention includes: a display **14**; a light detector **91** for detecting light incident on at least a part of the display; a comparator for comparing the light detected with a given threshold; and a controller **23** for controlling an illuminator **D1-Dn** and **98**. The display comprises a front face to be viewed by a user and a reverse face, such as illustrated in FIG. 7. The light detector **91** is positioned adjacent to and facing the reverse face of the display to receive a light level that represents a total of light contributing to illumination of the display, which is the sum of light received from the illuminator and light actually incident on the display.

The controller **23** is arranged to control illumination of the display based on a threshold level of the sum of the light received from the illumination and light incident on the display.

II. Neither Cohen nor any of the other cited references teach or suggest, alone or in combination, a light detector positioned to receive a light level that represents a sum of light received from the illuminator and light incident on the display.

In the final Office Action, Cohen was cited for teaching a light detector positioned to receive light incident on the display. Cohen describes a system where some portion of the ambient light and the light from an illuminator **16/46** are reflected to provide back illumination for a LCD **12/36**. Cohen describes a photo detector **18/48** that is used to detect the level of ambient light and adjust the contrast ratio of the display **12/36**. The photo detector **18/48** adjusts the contrast ratio of the display by controlling the illuminator **16/46** based on the level of the ambient light. See Cohen, FIGS. 3 and 4. Although Cohen states that the photo detector **48** is mounted on the pilot's helmet so as to sense ambient light, Cohen does not suggest that the photo detector could be positioned to sense the actual ambient light incident on the display. In fact, in FIG. 3, Cohen teaches that the ambient light received by the photo detector **18** takes a different path or comes from a different location than the ambient light received by the reflecting optics **10** and ultimately reflected to the LCD **12**. As such, the ambient light received by the photo detector **18** may differ from the ambient light incident upon the LCD, such as in instances in which the photo detector is shaded while the LCD is more brightly illuminated. Therefore, Cohen fails to teach or suggest a light detector positioned to receive light incident on the display, as recited by the independent claims of the present application. During the interview of March 10, 2006, the Examiner agreed that Cohen fails to teach a light detector positioned to receive light incident on the display.

Notably, Cohen also fails to teach or suggest a light detector positioned adjacent to and facing the reverse face of a display, or a light detector for sensing light received from the illuminator, as further recited by the independent claims of the present invention. In this regard, Cohen is essentially no different from the teachings of the other cited references in that it describes a photo detector used to detect ambient light conditions such that an illuminator can be controlled based on the ambient light conditions. It should be appreciated that this is not the

focus of the claimed invention. Instead the claimed invention is directed to positioning a photo detector in order to get a more realistic (i.e., more like the observer's point of view) reading of the total light incident on the display, such that the illuminator can be appropriately controlled. This total light is a sum of ambient light actually incident on the display and light from the illuminator. None of the cited references, alone or in combination, teach or suggest a light detector positioned to receive a light level that represents a sum of light received from the illuminator and light incident on the display, as recited by the independent claims of the present application.

As described in prior Office Action responses, Tsunoda describes a lamp **26** that acts as both the backlight illuminator *and* the light detector. The lamp **26** however, cannot act as both an illuminator and a light detector at the same time. *See, e.g.*, Tsunoda, FIG. 6, switch **86**. In other words, the lamp **26** of Tsunoda can only act as *either* an illuminator *or* a light detector. As such, the light detector of Tsunoda cannot possibly detect a light level that represents a sum of light received from the illuminator and light incident on the display, as recited by the independent claims of the present application. *See* the remarks in the Amendment dated 9/7/2004, pages 10-11, and the Amendment dated 5/18/2005, pages 11-12.

As also described in prior Office Action responses and Examiner interviews, Masahiro describes a light detector positioned to the side of the display for detecting light from the illuminator and ambient light. Masahiro does not describe a light detector positioned adjacent and facing a reverse face of the display, as recited by independent claims of the present application. Masahiro also does not detect light incident on the display, as also recited by the independent claims of the present application. Instead, Masahiro detects ambient light incident on some location adjacent to but separate from the display. *See, e.g.*, Masahiro, FIGS. 1 and 6.

Likewise, no combination of the cited references teaches or suggests the claimed invention. Both Cohen and Masahiro do not describe a light detector positioned where it can detect light actually incident on the display, and the light detector of Tsunoda cannot possibly detect light emitted from the illuminator since, in Tsunoda, the light detector must also act as the lamp when it is not acting as a light detector. Therefore since neither Cohen, Masahiro, Tsunoda, nor any of the other cited references, alone or in combination, teach or suggest a light detector positioned to receive a light level that represents a sum of light received from the

illuminator and light incident on the display, as recited by the independent claims of the present application, the rejections of Claims 1-16, 20, and 22-24 should be reversed. Furthermore, as described below, even if some combination of the references could be considered to teach or suggest the claimed invention, the references actually teach away from any combinations and, as such, a person having ordinary skill in the art would not have had the requisite motivation to combine the references.

III. Cohen cannot properly be combined with Tsunoda.

In addition to the fact that Cohen does not teach or suggest a light detector positioned to receive light incident on the display, there is no suggestion or motivation in the references to combine the teachings of Tsunoda, Masahiro, and Cohen in an effort to produce the claimed invention. In fact, Cohen may actually teach away from positioning a light detector adjacent to and facing a reverse face of the display. Specifically, FIG. 4 of Cohen depicts how the LCD 36 is illuminated by reflecting ambient light and light from an illuminator 46 to backlight the LCD 36. Based on this figure and the description in the specification, it appears as though it would be impractical to place a light sensor adjacent to and facing the reverse face of LCD 36 in a position where it could receive light incident on the display. Such a design would at least partially block light intended to be incident on the display, thereby creating a dark spot on the display. Thus, Cohen teaches against a light detector positioned adjacent to and facing a reverse face of the display. As such, the references do not provide the requisite motivation to combine Cohen with Tsunoda and Masahiro. Therefore, for this additional reason, the pending rejections of the claims (all of which rely upon the combination of Tsunoda and Cohen) should be reversed.

IV. Tsunoda teaches against the teachings of Masahiro, and as such, no combination of Tsunoda and Masahiro can properly be made.

Furthermore, as discussed in the interview of November 9, 2005, there is no suggestion or motivation in the references to combine the teachings of Tsunoda and Masahiro. Specifically, Tsunoda teaches away from equipment where the light sensitive element senses ambient light only at a location merely close to the display rather than at the display. See Tsunoda, col. 1, lines 15-44; and Fig 1. Masahiro describes an optical sensor 9 that senses external light B through

plastic cover **4** in the opening of the extraneous light taking-in aperture **2b**, which is at a location separate and distinct from the LCD panel **3** and the display window **2a**. *See* Masahiro Figs. 1 and 6. Tsunoda specifically tries to solve the problems associated with sensors that detect ambient light at some location separate from the actual display. *See* Tsunoda, col. 1, lines 15-44; and Fig 1. The Examiners should appreciate that embodiments of the claimed invention are also aimed at solving the problems associated with such sensors, although in a different and improved way than that taught by Tsunoda. Since, Tsunoda specifically teaches away from Masahiro, neither the references nor the knowledge of a person skilled in the art provides the requisite motivation to combine Masahiro with Tsunoda. As such, the pending rejections of the claims (all of which rely upon the combination of Tsunoda and Masahiro) should be reversed for this further reason.

V. Conclusion

For each of the foregoing reasons, Applicants submit that independent Claims 1, 14, 15, 16, and 20, as well as the claims that depend therefrom, are not taught or suggested by any proper combination of the cited references. Thus, Applicants respectfully request that the rejection of Claims 1-16, 20, and 22-24 under 35 U.S.C. § 103(a) be reversed.